

Notice of Allowability

Application No.

10/728,671

Examiner

Dalei Dong

Applicant(s)

MORRIS, THOMAS M.

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed on November 17, 2006.
2. ☒ The allowed claim(s) is/are 1-6,12,13,15-17,25,30 and 34-44.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. The Amendment filed on November 7, 2006, has been entered and acknowledged by the Examiner.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Renee Routkowsky on November 28, 2006.

The application has been amended as follows:

Claim 30. (Currently Amended) A light emitting assembly comprising: a metal substrate providing an inorganic electrically insulating coating less than one thousand microns thickness; a plurality of circuit traces on the electrically insulating coating providing terminals and conductive paths for placing light emitting elements in circuit, the terminals being of a composition compatible with metal droplet connection, the circuit traces being a fired inorganic dielectric material and a metal; a solderable thermal conductor having therein a glass and a metal bonded to the insulating coating and thereby in conductive heat transmitting relation with the substrate; and a plurality of light emitting elements having leads bonded to the terminals with metal droplets, the light emitting elements having a thermally conductive base, electrically isolated from the

circuit traces, providing a flat section of predetermined area, the flat section being in intimate heat exchange relation with the thermal conductor and thereby being in conductive heat transmitting relation with the substrate.

Claim 36. (Currently Amended) The light emitting assembly of claim 32 30 wherein the metal droplet connection is a wire-bonded connection.

Allowable Subject Matter

3. Claims 1-6, 12, 13, 15-17, 25, 30 and 34-44 are allowed.
4. The following is an examiner's statement of reasons for allowance:

Regarding to independent claim 1, prior art of record taken alone or in combination fails to teach or suggest a light emitting assembly comprising: a plurality of circuit traces fired and thereby bonded to the inorganic electrically insulating coating providing terminals and the circuit traces having therein an inorganic dielectric material and a metal; and a solderable thermal conductor, having therein an inorganic dielectric material and a metal, fired and thereby bonded to the inorganic insulating coating in combination with other claimed features of the present claimed invention.

Regarding to dependent claims 2-6, 12, 13, 15-17, 38, 39, 41, 43 and 44, are allowed because of the dependency upon the allowable independent claim 1.

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Regarding to independent claim 25, prior art of record taken alone or in combination fails to teach or suggest a light emitting assembly comprising: a plurality of circuit traces on the electrically insulating coating providing terminals and conductive paths between the terminals for placing light emitting elements in circuit, the circuit traces comprising a fired inorganic dielectric material and a quantity of silver effective to make the paths conductive, in combination with other claimed features of the present claimed invention.

Regarding to independent claim 30, prior art of record taken alone or in combination fails to teach or suggest a light emitting assembly comprising: a plurality of circuit traces on the electrically insulating coating providing terminals and conductive paths for placing light emitting elements in circuit, the circuit traces being a fired inorganic dielectric material and a metal; and a solderable thermal conductor, having therein an inorganic dielectric material and a metal, fired and thereby bonded to the inorganic insulating coating in combination with other claimed features of the present claimed invention.

Regarding to dependent claims 34-37, 40 and 42, are allowed because of the dependency upon the allowable independent claim 30.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalei Dong whose telephone number is (571)272-2370. The examiner can normally be reached on 8 A.M. to 5 P.M..

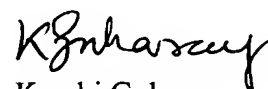
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571)272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



D.D.

November 30, 2006



Karabi Guharay
Primary Examiner
Art Unit 2879

**KARABI GUHARAY
PRIMARY EXAMINER**